



KRAKÓW • POLAND  
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# Data Integration and Poverty Mapping: The Experience of Sri Lanka

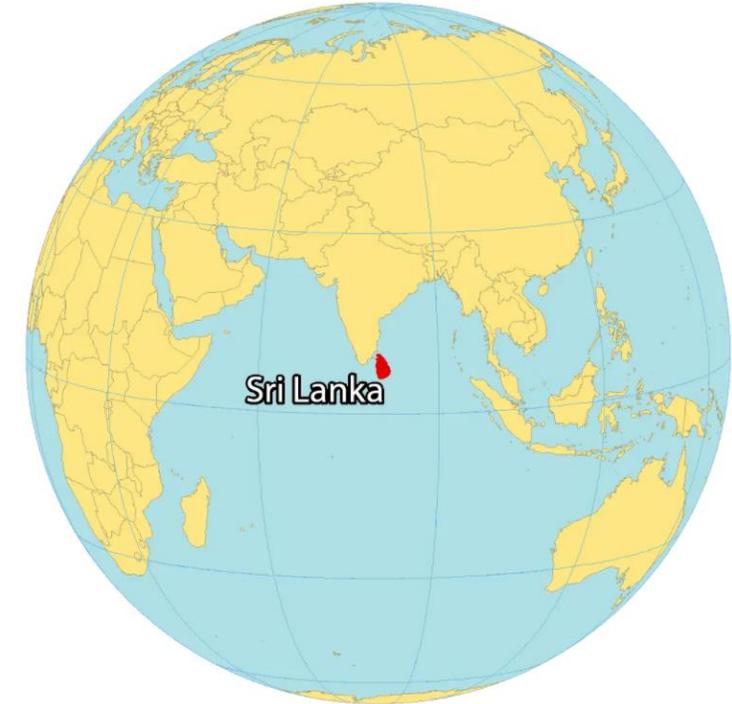
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CP035:

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# Introduction

- SDG 2030 mainly focus on data-driven evidence-based policymaking to achieve the concept of no one behind the principle. It shades with quality, timely and reliable data with disaggregates statistics
- Many developing countries lack on over half of the SDG indicators
- The developing countries typically provide statistics from household surveys, establishment surveys and censuses-*facilitate to provide reliable estimates at highly aggregate levels.*
- policymakers are unable to do effective targeting of socioeconomic programs without having granular data
- It is important to explore alternative data access to complement to the survey data







# Challenges and opportunities for data integration

- Limited technical capacity,
- Access to data and metadata
- data quality
- Public acceptance
- Uncertainty
- About accuracy of user-generated contents
- Difficulty of coordination with data holders, tight privacy regulations and social license.



# Data Integration The Experience of Sri Lanka

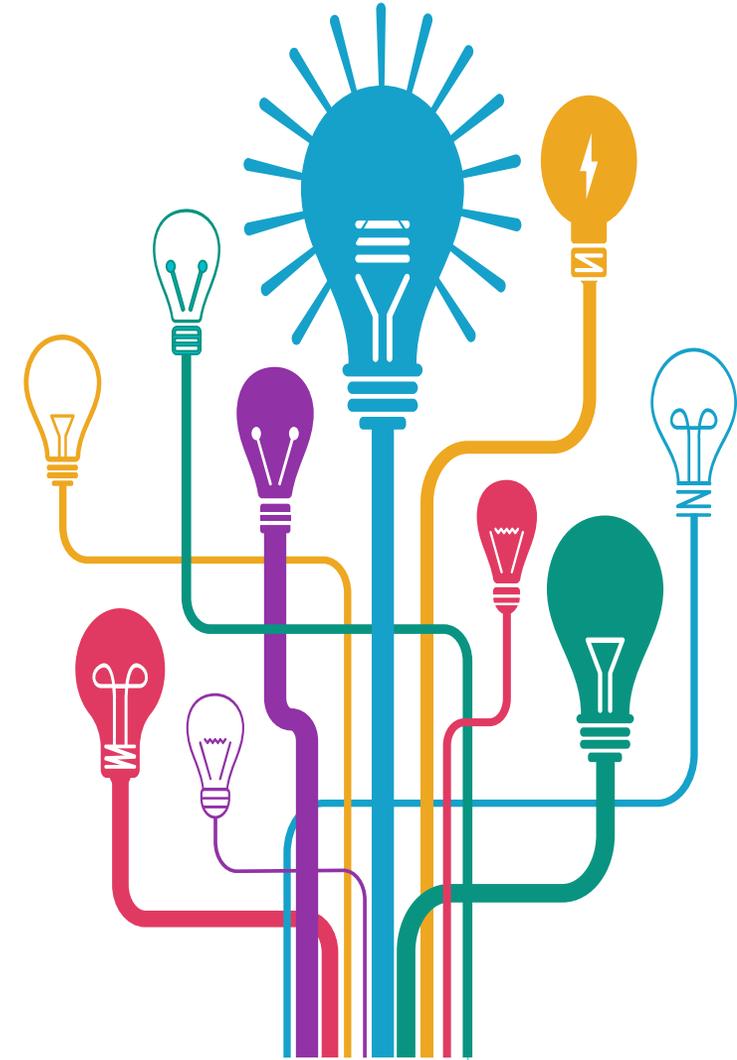
- DCS is planning to implement National Statistical System for Sri Lanka
- Data integration system has not implemented yet
- Attempts have been made by some institutions to prepare the registry;

Ex:

- Business registry – Department of Census and Statistics,
- Population registry – Department of Registrar General
- Health registry – Health ministry ,
- Social registry – Welfare Benefit Board, Ministry of Finance

## Some major challenges being encounter when integrating data

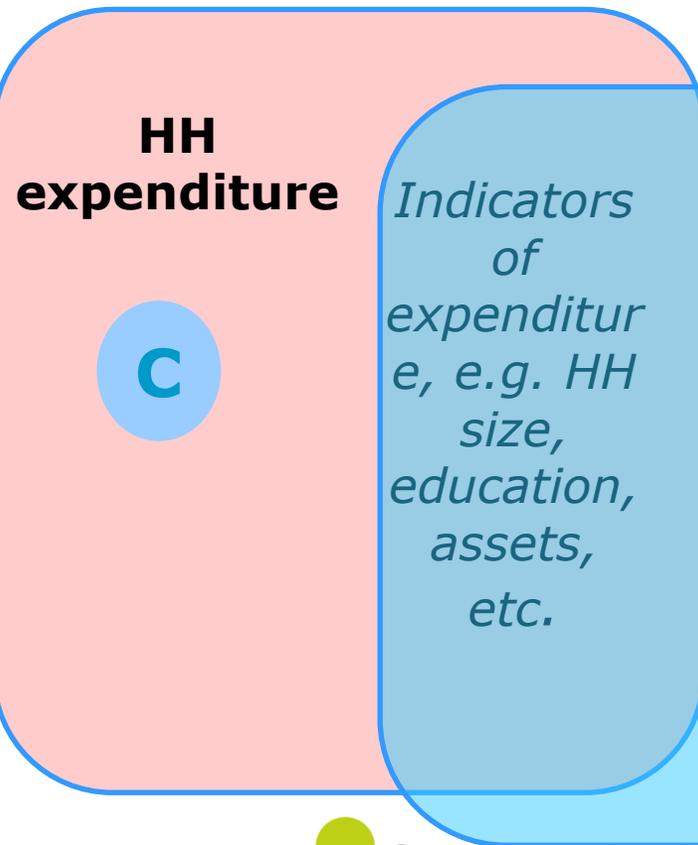
- Deal with vast amounts of paper-based legacy records
- Access to metadata
- Make changes to the relevant legislations
- Protect privacy of data
- Preparing unique identification



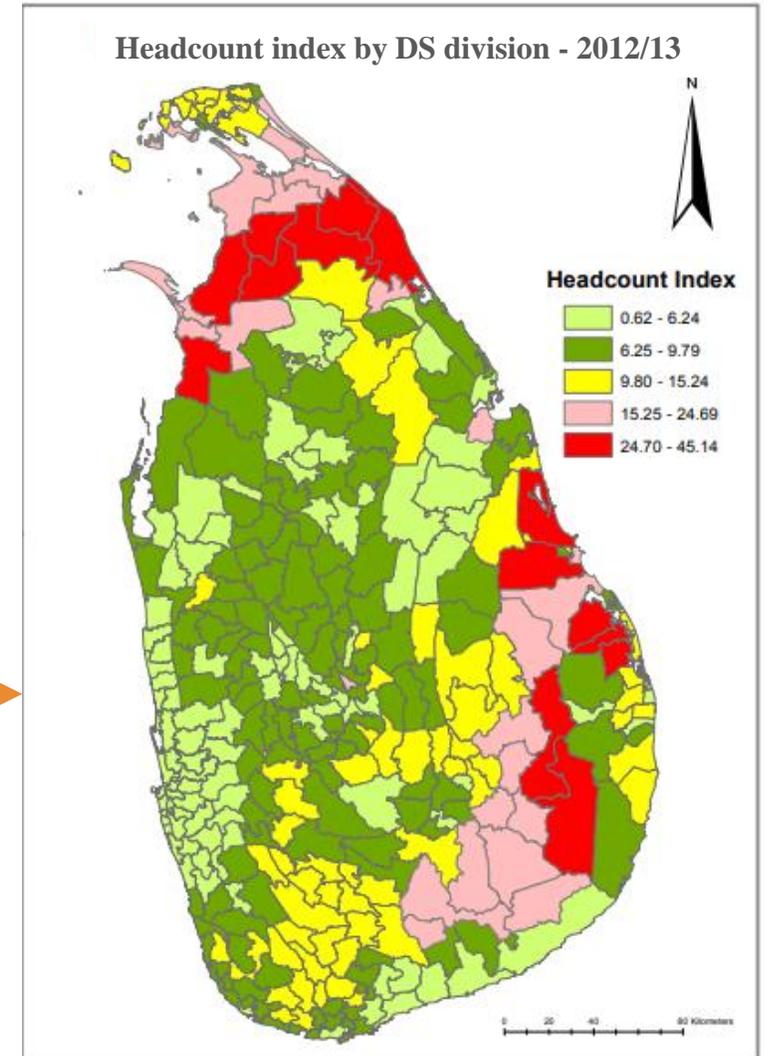
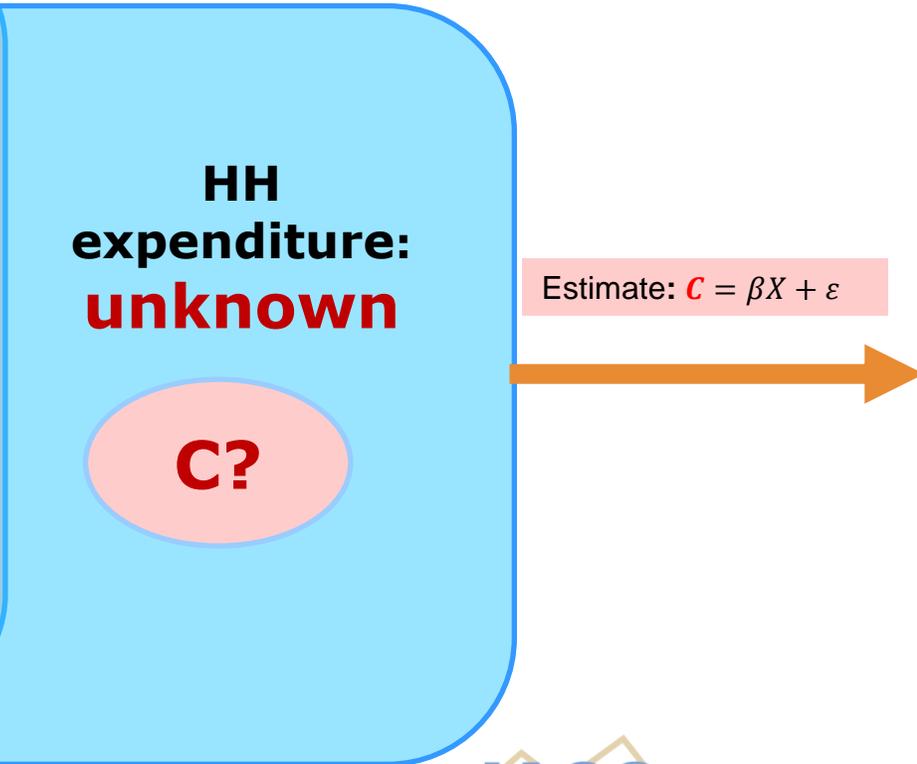
# Data Integration and poverty mapping: The Experience of Sri Lanka

## “Small area estimation method”

HIES

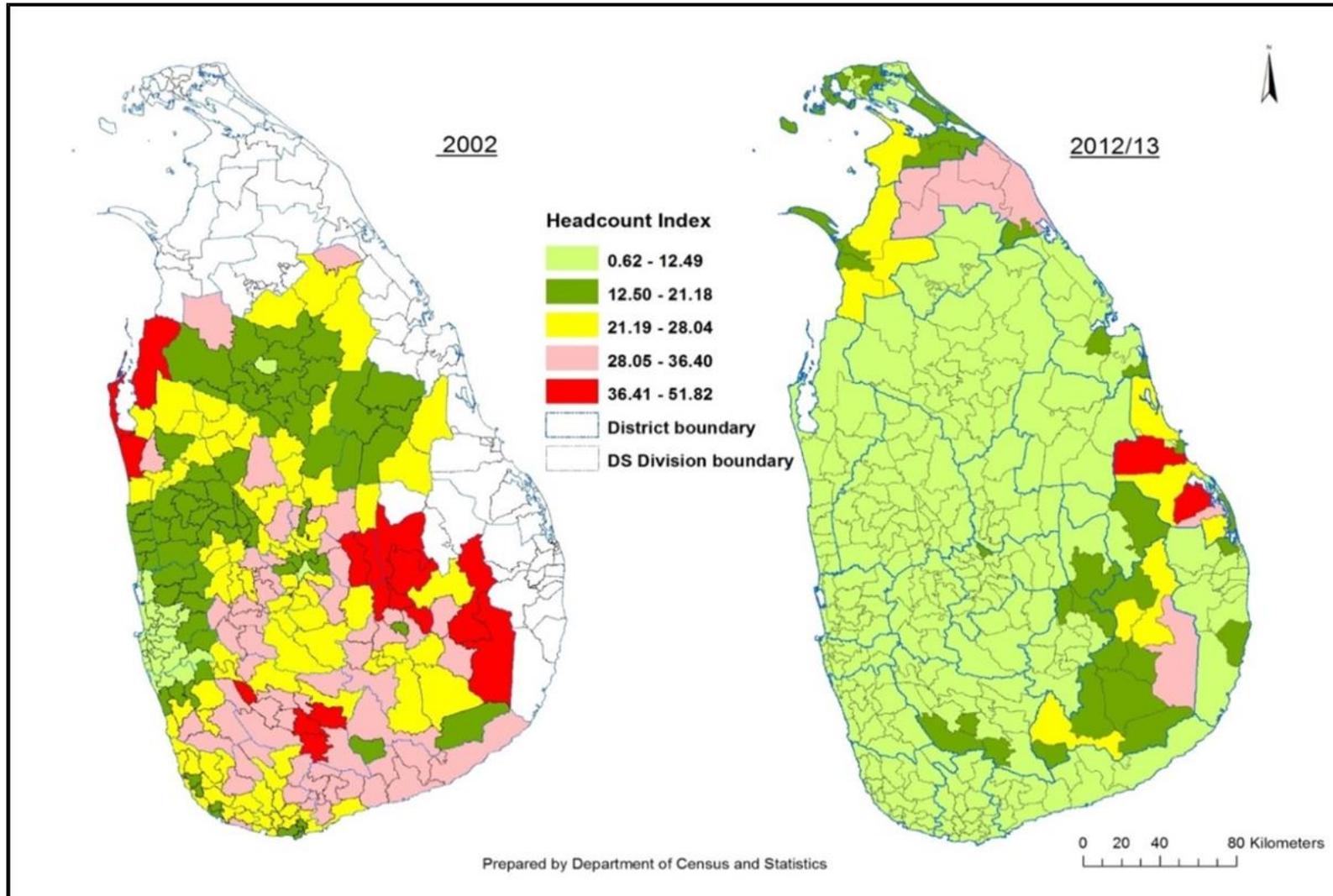


Census



# Significant poverty reduction

## Distribution of poverty headcount index by DS division - 2002 and 2012/13



Most notably Kalpitiya, Mundel, and Vanathawilluwa in Puttalam district, and Minipe and Udadumbara in Kandy district made considerable progress out of deep poverty. In each case, their headcount rate shrank from over 37 percent in 2002 to less than 10 percent in 2012/13.

# Integrate of satellite imagery and other innovative big data sources to measure poverty

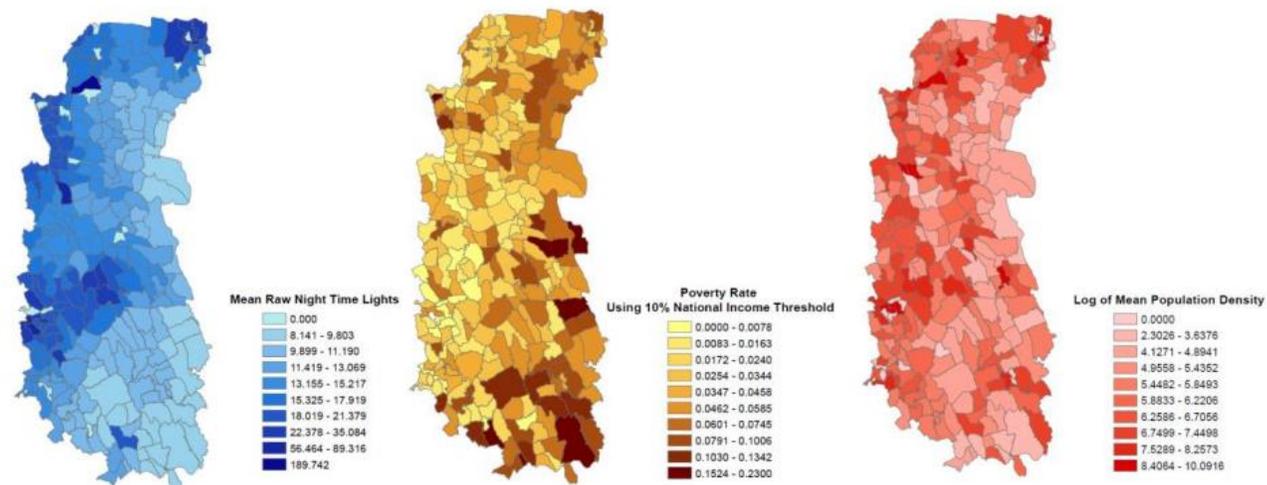
- Big data is also a data but huge in size.
- Collected from various sources examples are social networks web text documents, large-scale e-commerce, sensor network, medical records etc
- Growing exponentially with time.
- So large size and complexity that none of traditional data management tools can store it or process it efficiently.
- The World Bank has a feasibility Study of bottom-up method combining household survey data with contemporaneous satellite imagery to track frequent changes in local population density in Sri Lanka (Engstrom, Newhouse, & Soundararajan, 2019)
- The predictions are also more accurate



# Big data sources to measure poverty

Engstrom, Hersh and Newhouse, (2017) have accomplished a study using high spatial resolution satellite images to accurately estimate poverty and economic well-being for the Divisional Secretariat of Seethawaka in Sri Lanka.

Poverty from Space: Using High Resolution Satellite Imagery for Estimating Economic Well-being



Source: Engstrom, Hersh and Newhouse, (2017)

# Conclusion

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- Granularity of poverty statistics is very important for evidence-based policy decisions to achieve the SDG to the concept of no one behind the principle.
- Many developing countries have not compiled over half the SDG indicators due to a lack of data.
- Many countries typically produce statistics for policy decisions for the development of the countries based on surveys and censuses. But those are not inadequate to provide reliable statistics for more granular levels.
- Therefore, it is important to go beyond the traditional type of data.
- Currently, there is a trend to use data integrations methods and big data for compilations of poverty mapping for evidence-based policy decisions.
- However, there are limitations to these methods.
- Despite this, it is important to examine the use of these approaches meaningfully to improve the quality dimensions of official statistics to use evidence-based policy decisions on the country's development objectives.



# Thank you